

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(DO/EO/US)

In re national phase of:

Applicant(s): Yoshiaki HASEGAWA et al.  
International Application No.: PCT/JP2004/004974  
International Filing Date: 06 April 2004  
Priority Date Claimed: 28 April 2003  
Title of Invention: SEMICONDUCTOR LIGHT-EMITTING ELEMENT AND METHOD  
FOR FABRICATING THE SAME

INFORMATION DISCLOSURE STATEMENT

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1345

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, pending applications, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120:

Serial No.: \_\_\_\_\_  
Filing Date: \_\_\_\_\_

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

- (a) X Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.  
(b) \_\_\_\_ Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

- (a) X Within 3 months of the filing date, date of entry into the National Stage, or filing date of CPA.  
(b) \_\_\_\_ Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 18-0988 for consideration of this Statement.  
(c) \_\_\_\_ Before the mailing date of a first Office Action on the merits after a first or second submission after final rejection under 37 C.F.R. 1.129(a).

(d) \_\_\_ After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.

(1) \_\_\_ The required certification is given below, or

(2) \_\_\_ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or

(3) \_\_\_ Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 18-0988

(e) \_\_\_ After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. Petition hereby is made for consideration of this Statement and the required certification is indicated below.

(1) \_\_\_ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p), or

(2) \_\_\_ Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 18-0988.

4. Certification (if applicable)

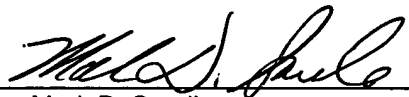
(a) \_\_\_ The undersigned hereby certifies that each item of information contained in this Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

(b) \_\_\_ The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

5. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 18-0988.

Respectfully Submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP

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|   |  |                                       |  |   |  |                                    |                         |
|---|--|---------------------------------------|--|---|--|------------------------------------|-------------------------|
| Form PTO-1449 (Modified)<br><br><div style="text-align: center;"> <b>LIST OF PATENTS AND PUBLICATIONS<br/>FOR APPLICANT'S<br/>INFORMATION DISCLOSURE STATEMENT</b> </div> <div style="text-align: center; margin-top: 10px;"> <small>(Use several sheets if necessary)</small> </div> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Atty Docket No.<br/><b>OKUDP0116US</b></td> <td style="width: 50%;">Express Mail No.<br/><b>EV671713363US</b></td> </tr> <tr> <td colspan="2">Applicant:<br/><b>Yoshiaki HASEGAWA et al.</b></td> </tr> <tr> <td>Filing Date<br/><b>June 7, 2005</b></td> <td>Group<br/><b>Unknown</b></td> </tr> </table> | Atty Docket No.<br><b>OKUDP0116US</b> | Express Mail No.<br><b>EV671713363US</b> | Applicant:<br><b>Yoshiaki HASEGAWA et al.</b> |  | Filing Date<br><b>June 7, 2005</b> | Group<br><b>Unknown</b> |
| Atty Docket No.<br><b>OKUDP0116US</b>   | Express Mail No.<br><b>EV671713363US</b>   |                                       |  |   |  |                                    |                         |
| Applicant:<br><b>Yoshiaki HASEGAWA et al.</b>   |  |                                       |  |   |  |                                    |                         |
| Filing Date<br><b>June 7, 2005</b>  | Group<br><b>Unknown</b>  |                                       |  |   |  |                                    |                         |

**U.S. PATENT DOCUMENTS**

| Examiner Initial | Document Number                                | Date       | Name            | Class | Sub-class | Filing Date if Appropriate |
|------------------|--|------------|-----------------|-------|-----------|----------------------------|
|                  | 6,522,676 B1 (corresponds to JP 2000-286504 A) | 02/18/2003 | Goto et al.     |       |           |                            |
|                  | 6,348,096 B1                                   | 02/19/2002 | Sunakawa et al. |       |           |                            |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initial | Document Number | Date       | Country | Class | Sub-class | Translation |    |
|------------------|-----------------|------------|---------|-------|-----------|-------------|----|
|                  | 2000-286504 A   | 13/10/2000 | JP      |       |           | Yes         | No |
|                  | 10-233547       | 02/09/1998 | JP      |       |           | Abstract    |    |
|                  | 2001-068786     | 16/03/2001 | JP      |       |           | Abstract    |    |
|                  | 10-0256647      | 25/09/1998 | JP      |       |           | Abstract    |    |
|                  | 09-148672       | 06/0/1997  | JP      |       |           | Abstract    |    |
|                  | 07-326812       | 12/12/1995 | JP      |       |           | Abstract    |    |
|                  | 05-121839       | 18/05/1993 | JP      |       |           | Abstract    |    |
|                  | 61-187388       | 21/08/1986 | JP      |       |           | Abstract    |    |
|                  | 08-064791       | 08/03/1996 | JP      |       |           | Abstract    |    |

**OTHER ART**

| Examiner Initial | Author, Title, Date, Pertinent Pages, etc.  |
|------------------|---|
|                  | International Search Report for corresponding PCT/JP2004/004974, mailed July 27, 2004.  |
|                  | "InGaN Multiquantum-Well-Structure Laser Diodes with GaN-AlGaIn Modulation-Doped Strained-Layer Superlattices", Shuji Nakamura, IEEE Journal of Selected Topics in Quantum Electronics, Vol. 4, No.3 May/June 1998, pp. 483-489 (cited in line 9, page 3 of the description). |
|                  | "High-Power AlGaInN Laser Diodes with High Kink Level and Low Relative Intensity Noise", Tsuyoshi Tojyo et al., Japanese Journal of Applied Physics, Vol. 41 (2002, pp. 1829-1833 (cited in line 11, page 3 of the description).  |
|                  | "Novel Ridge-Type InGaN Multiple-Quantum-Well Laser Diodes Fabricated by Selective Area Re-Growth on n-GaN Substrates" Masaru Kuramoto et al., Japanese Journal of Applied Physics, Vol. 40 (2001), pp. L925-L927 (cited in line 8, page 4 of the description).               |

|                 |                        |
|-----------------|------------------------|
| <b>EXAMINER</b> | <b>DATE CONSIDERED</b> |
|-----------------|------------------------|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**Information Disclosure Statement PTO-1449 (Modified)**

The identification of any reference is not intended to be, and should not be understood as being, an admission that such publication, in fact, constitutes "prior art" within the meaning of applicable law since, for example, a given reference may have a later effective date than first seems apparent or the reference may have an effective date which can be antedated. The "prior art" status of any reference is a matter to be resolved during prosecution.